APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/068,087	02/06/2002	Feniosky Pena-Mora	MIT-087PUS	7377

			EXAMINER
22494	7590	07/03/2006	STEVENS, THOMAS H

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ART UNIT	PAPER NUMBER
2123	

DATE MAILED: 07/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	10/068,087	PENA-MORA ET AL.
	Examiner	Art Unit
	Thomas H. Stevens	2123

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _06 February 2002_.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-18_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _1-18_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _06 February 2002_ is/are: a)☐ accepted or b)☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some *   c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _03/29/2002_.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.   Claims 1-18 were examined.

Information Disclosure Statement

2.   The information disclosure statement (IDS) resubmitted on 03/29/2002 was

acknowledged and considered by the Office.

Specification

3.   The specification is objected to due to the following issues:

- a missing application number on page 12, line 28.

- Page 13, line 8, typographical error: "104and."

- Page 19, line 24, typographical error: "162b(i.e."

Drawings

4.   The drawings are objected to because elements 172, 176 are missing in the

specification. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are

required in reply to the Office action to avoid abandonment of the application. Any

amended replacement drawing sheet should include all of the figures appearing on the

immediate prior version of the sheet, even if only one figure is being amended. The

figure or figure number of an amended drawing should not be labeled as "amended." If

a drawing figure is to be canceled, the appropriate figure must be removed from the

replacement sheet, and where necessary, the remaining figures must be renumbered

and appropriate changes made to the brief description of the several views of the

drawings for consistency. Additional replacement sheets may be necessary to show the

renumbering of the remaining figures. Each drawing sheet submitted after the filing date

of an application must be labeled in the top margin as either "Replacement Sheet" or

"New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the

examiner, the applicant will be notified and informed of any required corrective action in

the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

5.   The examiner has provided a number of examples of claim deficiencies, which

may not be inclusive:

- Claim 17 is objected to by the limitation of "that" which is unclear within context of
  the claim.

- Claim 18 is objected to by having two periods at the end of the sentence.

Claim Interpretation

6.   Office personnel are to give claims their **"broadest reasonable interpretation"**

in light of the supporting disclosure. In re Morris, 127 F.3d 1048, 1054-55, 44 USPQ2d

1023, 1027-28 (Fed. Cir. 1997). Limitations appearing in the specification but not recited

in the claim are not read into the claim. In re Prater, 415 F.2d 1393, 1404-05, 162

USPQ 541, 550-551(CCPA 1969). See *also In re Zletz, 893 F.2d 319, 321-22, 13

USPQ2d 1320, 1322(Fed. Cir. 1989) ("During patent examination the pending claims

must be interpreted as broadly as their terms reasonably allow") .... The reason is

simply that during patent prosecution when claims can be amended, ambiguities should

be recognized, scope and breadth of language explored, and clarification imposed ....

An essential purpose of patent examination is to fashion claims that are precise, clear,

correct, and unambiguous. Only in this way can uncertainties of claim scope be removed, as much as possible, during the administrative process.

The Office extracts applicants' definition of buffer reliability denoted on page 4, lines 7-17; and the limitation of time precedence as the following: "*a relationship between two activities. For example if a first activity must finish before a second activity can start, the first and second activities are said to be in a "finish to start" time precedence relationship. Time precedence relationships include finish to start (FS), finish to finish (FF), start to finish (SF), and start to start (SS) relationships. For another example, when two activities are time related in an FS relationship with lead, a downstream activity can begin a lead period before the completion of an upstream activity to which it is related. This is contrasted with an FS relationship with lag for which the downstream activity is delayed to start with a lag delay after the completion of an upstream activity to which it is* related." (specification, page 2, lines 17-28). Same definition holds true for the limitation of convention project plan as depicted on page 7, lines 23-30. Furthermore these limitations are depicted in Pena-Mora et al., titled "Dynamic Planning and Control Methodology for Design/Build Fast-Track Construction Projects" Jan/Feb 2001 on page 15, table 1.

Claim Rejections - 35 USC § 103

7.   The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1.   Determining the scope and contents of the prior art.

2.   Ascertaining the differences between the prior art and the claims at issue.

3.   Resolving the level of ordinary skill in the pertinent art.

4.   Considering objective evidence present in the application indicating

obviousness or nonobviousness.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of

the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g)

prior art under 35 U.S.C. 103(a).

8.   Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Parad (US Patent 5,369,570; hereafter Parad) in view of Pena-Mora et al., titled

"Dynamic Planning and Control Methodology for Design/Build Fast-Track Construction

Projects" Jan/Feb 2001 (hereafter Mora).

Parad teaches a method for continuous real-time management of multiple

distributed resource engines to maintain precise schedules (abstract); but fails to teach

upstream/downstream as well as reliability buffers.

Mora teaches a dynamic project planning and control methodology for

integrating concurrent engineering concept graphically which include (abstract)

upstream/downstream (table 1) as well as reliability buffers (pg. 12, right column 5th

paragraph, 2nd line with pg.8. right column, 2nd paragraph, lines 19-22).

Parad and Mora are analogous art since both teach software-based resource

management scheduling.

Therefore it would have been obvious to one having ordinary skill in the art at the

time of invention was made to utilize the dynamic planning and control methodology of

Mora in the automated resource scheduling platform of Parad since Mora teaches a

method that creates an effective fast-tracking project plan to absorb potential changes

without creating major interruptions to the project schedule (Mora: pg. 17, lines 5-7).

Claim 1. A reliability buffering (Mora: pg. 12, right column 5th paragraph, 2nd line with

pg.8. right column, 2nd paragraph, lines 19-22) method associated with a project

planning model (Mora: abstract, line13) having project plan data and having a plurality

of activities, wherein each or the plurality of activities (Mora: pg. 13,figure 12 "plurality

of events") has one or more activity time (Pard: column 15, line16, 48-51) precedence

relationships, comprising: adding activity characteristics (Mora: pg. 14, 6th paragraph,

line 10) data to the project plan data; generating a reliability buffer duration (Mora: pg.

12, right column 5th paragraph, 2nd line with pg.8. right column, 2nd paragraph, lines

19-22) value corresponding to the project plan data and placing a reliability buffer

(Mora: pg. 12, right column 5th paragraph, 2nd line with pg.8. right column, 2nd

paragraph, lines 19-22) in front of a downstream (Mora: pg. 15, table 1, categories)

activity.

Claim 2. The reliability buffering (Mora: pg. 12, right column 5th paragraph, 2nd line with

pg.8. right column, 2nd paragraph, lines 19-22) method of claim 1, further comprising:

adding activity relationship data to the project plan data.

Claim 3. The reliability buffering (Mora: pg. 12, right column 5th paragraph, 2nd line with

pg.8. right column, 2nd paragraph, lines 19-22) method of claim 1, further comprising:

altering the one or more activity time (Pard: column 15, line16, 48-51) precedence

relationships.

Claim 4. A reliability buffering (Mora: pg. 12, right column 5th paragraph, 2nd line with

pg.8. right column, 2nd paragraph, lines 19-22) method associated with a project

planning model (Mora: abstract, line13)having project plan data, having a project

schedule, and having a plurality of activities, comprising: selecting a downstream (Mora:

pg. 15, table 1, categories) activity from among the plurality of activities; adding activity

relationship data associated with the downstream (Mora: pg. 15, table 1, categories)

activity and with at least one upstream (Mora: pg. 15, table 1, categories) activity to the

project plan data; adding activity characteristics (Mora: pg. 14, 6th paragraph, line

10)data associated with the downstream (Mora: pg. 15, table 1, categories) activity to

the project plan data; and placing a reliability time buffer in a buffer time precedence

(Pard: column 17, line 15-20) relationship with the downstream (Mora: pg. 15, table 1,

categories) activity to provide a buffered downstream (Mora: pg. 15, table 1, categories)

activity.

Claim 5. The reliability buffering (Mora: pg. 12, right column 5th paragraph, 2nd line with

pg.8. right column, 2nd paragraph, lines 19-22) method of claim 4, wherein adding

activity relationship data comprises-.adding a downstream (Mora: pg. 15, table 1,

categories) sensitivity value associated with the activity time (Pard: column 15, line16,

48-51) precedence relationship to the project plan data.

Claim 6. The reliability buffering (Mora: pg. 12, right column 5th paragraph, 2nd line with

pg.8. right column, 2nd paragraph, lines 19-22) method of claim 4, wherein adding

activity characteristics (Mora: pg. 14, 6th paragraph, line 10) data comprises: adding an

activity reliability value to the project plan data.

Claim 7. The reliability buffering (Mora: pg. 12, right column 5th paragraph, 2nd line with

pg.8. right column, 2nd paragraph, lines 19-22) method of claim 4, wherein adding

activity characteristics (Mora: pg. 14, 6th paragraph, line 10)data comprises: adding an

activity production rate value to the project plan data.

Claim 8. The reliability buffering (Mora: pg. 12, right column 5th paragraph, 2nd line with

pg.8. right column, 2nd paragraph, lines 19-22) method of claim 4, wherein the buffer

time precedence relationship is finish to start (Mora: pg. 8, right column lines 2-3).

Claim 9. The reliability buffering (Mora: pg. 12, right column 5th paragraph, 2nd line with

pg.8. right column, 2nd paragraph, lines 19-22) method of claim 4, further comprising:

generating a reliability buffer duration (Mora: pg. 12, right column 5th paragraph, 2nd

line with pg.8. right column, 2nd paragraph, lines 19-22) value associated with the

reliability buffer and corresponding to the project plan data; and generating an activity

time (Pard: column 15, line16, 48-51) precedence relationship between the buffered

downstream (Mora: pg. 15, table 1, categories) activity and the at least one upstream

(Mora: pg. 15, table 1, categories) activity, corresponding to the project plan data, to

provide an initial reliability buffer project plan.

Claim 10. The reliability buffering (Mora: pg. 12, right column 5th paragraph, 2nd line

with pg.8. right column, 2nd paragraph, lines 19-22) method of claim 9, wherein the

activity time (Pard: column 15, line16, 48-51) precedence relationship is selected from

the group consisting of finish to start (Mora: pg. 8, right column lines 2-3), finish to

finish, start to start, and start to finish.

Claim 11. The reliability buffering (Mora: pg. 12, right column 5th paragraph, 2nd line

with pg.8. right column, 2nd paragraph, lines 19-22) method of claim 9, wherein

generating the reliability buffer duration (Mora: pg. 12, right column 5th paragraph, 2nd

line with pg.8. right column, 2nd paragraph, lines 19-22) value comprises: selecting one

or more upstream (Mora: pg. 15, table 1, categories) activities associated with the

downstream (Mora: pg. 15, table 1, categories)activity from among the plurality of

activities; and generating a reliability buffer duration (Mora: pg. 12, right column 5th

paragraph, 2nd line with pg.8. right column, 2nd paragraph, lines 19-22) value that

reduces a simulated schedule delay (Mora: pg. 3, left column, line 3) to the project

schedule that occurs due to simulated schedule delay (Mora: pg. 3, left column, line 3)s

(Mora: pg. 3, left column, line 3) of respective ones of the one or more upstream (Mora:

pg. 15, table 1, categories) activities, and that increases a simulated schedule advance

to the project schedule that occurs due to simulated schedule advances of respective

ones of the one or more upstream (Mora: pg. 15, table 1, categories) activities.

Claim 12. The reliability buffering (Mora: pg. 12, right column 5th paragraph, 2nd line

with pg.8. right column, 2nd paragraph, lines 19-22) method of claim 11, wherein

generating the reliability buffer duration (Mora: pg. 12, right column 5th paragraph, 2nd

line with pg.8. right column, 2nd paragraph, lines 19-22) value comprises: selecting a

plurality of reliability buffer duration (Mora: pg. 12, right column 5th paragraph, 2nd line

with pg.8. right column, 2nd paragraph, lines 19-22) values; and for each of the plurality

of reliability buffer duration (Mora: pg. 12, right column 5th paragraph, 2nd line with

pg.8. right column, 2nd paragraph, lines 19-22) values, generating a simulated project

schedule and a simulated project cost; analyzing the simulated project schedules and

the simulated project costs (Mora: pg. 3, left column, line 3) associated with the plurality

of reliability buffer duration (Mora: pg. 12, right column 5th paragraph, 2nd line with

pg.8. right column, 2nd paragraph, lines 19-22) values; and selecting the reliability

buffer duration (Mora: pg. 12, right column 5th paragraph, 2nd line with pg.8. right

column, 2nd paragraph, lines 19-22) value and the associated project schedule

corresponding to a smallest simulated projected schedule or associated with a smallest

simulated project cost (Mora: pg. 4, left column, 3rd paragraph, lines 7-8).

Claim 13. The reliability buffering (Mora: pg. 12, right column 5th paragraph, 2nd line

with pg.8. right column, 2nd paragraph, lines 19-22)method of claim 9, wherein

generating the activity time precedence (Pard: column 17, line 15-20) relationship

comprises: selecting a time precedence (Pard: column 17, line 15-20) relationship from

the group consisting of a finish to start (Mora: pg. 8, right column lines 2-3) relationship,

a finish to finish relationship, a start to finish relationship, and a finish to start (Mora: pg.

8, right column lines 2-3) relationship; selecting one or more upstream (Mora: pg. 15,

table 1, categories) activities associated with the downstream (Mora: pg. 15, table 1,

categories) activity from among the plurality of activities; and generating a reliability

buffer lead or lag value that reduces a simulated schedule delay (Mora: pg. 3, left

column, line 3) to the project schedule that occurs due to simulated schedule delays

(Mora: pg. 3, left column, line 3) of respective ones of the one or more upstream (Mora:

pg. 15, table 1, categories) activities, and that increases a simulated schedule advance

to the project schedule that occurs due to simulated schedule advances of respective

ones of the one or more upstream (Mora: pg. 15, table 1, categories) activities.

Claim 14. The reliability buffering (Mora: pg. 12, right column 5th paragraph, 2nd line

with pg.8. right column, 2nd paragraph, lines 19-22) method of claim 9, further

comprising: adding policy data to the project plan data.

Claim 15. The reliability buffering (Mora: pg. 12, right column 5th paragraph, 2nd line

with pg.8. right column, 2nd paragraph, lines 19-22) method of claim 14, wherein adding

policy data comprises: adding at least one of: a manpower availability (well known

within the business community) versus time value; a overtime (well known within the

business community) and flexible headcount control value, a time buffer, a

thoroughness of quality (Parad: column 4, line 67) control value; a hiring time (well

known within the business community) control value, and a request for information

(RF1) time duration (Mora: pg. 12, right column 5th paragraph, 2nd line with pg.8. right

column, 2nd paragraph, lines 19-22) value to the project plan data.

Claim 16. The reliability buffering (Mora: pg. 12, right column 5th paragraph, 2nd line

with pg.8. right column, 2nd paragraph, lines 19-22) method of claim 9, further

comprising: updating the project plan data to provide an updated reliability buffer project

plan.

9.   Claims 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Pena-Mora et al., titled "Dynamic Planning and Control Methodology for

Design/Build Fast-Track Construction Projects" Jan/Feb 2001 (hereafter Mora 2) in view

of Pena-Mora et al., "Component-based Software Development for Integrated

Construction Management Software Applications" (hereafter Mora 1).

Mora 2 teaches a project management system (Mora 2, abstract, line 13 "project

planning") but fails to teach integrated construction management software application

for schedule processing, inventory management, and finance/accounting.

Mora 1 teaches in integrated construction management software application for

schedule processing, inventory management, and finance/accounting.

Mora 1 and Mora 2 are analogous art since both teach construction planning.

Therefore, it would have been obvious to one having ordinary skill in the art at

the time the invention was made to utilize the project processor of Mora 1 in the

dynamic planning of Mora 2 because Mora 1 teaches a method that carr[ies] out

research in producing a design rationale model that filter[s] and integrates design

rationale information from a wide range of sources across different ICM projects (Mora

1).

Claim 17. A project management system (Mora 2, abstract, line 13 "project planning")

comprising: a project data processor (Mora 1: pg. 181, figure 7, "web server" plurality of

processors) to provide project plan data (Mora 2: "GERT" as a project plan type as

denoted in page 3, lines 5-12 within the specification); and a reliability buffer Mora 2: pg.

3, left column, 2nd paragraph, "reliability"; and pg. 8, lines 19-22) processor (Mora 1: pg. 181, figure 7, "web server" plurality of processors) adapted to receive that project plan data (Mora 2: "GERT" as a project plan type as denoted in page 3, lines 5-12 within the specification) and to generate a project plan with reliability buffers (Mora 2: pg. 3, left column, 2nd paragraph, "reliability"; and pg. 8, lines 19-22).

Claim 18. The project management system of claim 17 further including a project plan processor adapted to provide conventional project plan data to the project data processor, and wherein the project data processor (Mora 1: pg. 181, figure 7, "web server" plurality of processors) is adapted to receive the conventional project plan data (see claim interpretation) and to provide the project plan data (Mora 2: "GERT" as a project plan type as denoted in page 3, lines 5-12 within the specification).

Citation to Relevant Prior Art
10.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- US Patent 6,289,340 teaches an automated workflow database for business managers.

- US Patent 6,122,633 teaches a workflow management system to model business processes and goals.

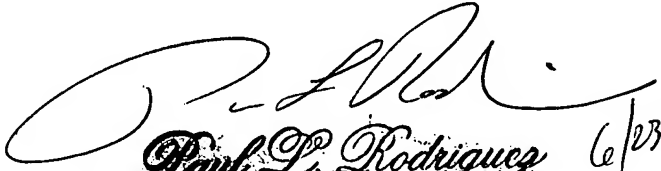
Correspondence Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mr. Tom Stevens whose telephone number is 571-272-3715, Monday-Friday (8:00 am- 4:30 pm EST).

If attempts to reach the examiner by telephone are unsuccessful, please contact examiner's supervisor Mr. Paul Rodriguez 571-272-3753. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov.. Answers to questions regarding access to the Private PAIR system, contact the Electronic Business Center (EBC) (toll-free (866-217-9197)).

May 27, 2006

TS

Paul P. Rodriguez
Primary Examiner
Art Unit 2125 2123